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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/706,696

11/12/2003

Herve Varin

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8604

826

7590

05/17/2006

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EXAMINER

CHARLES, MARCUS

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/706,696

Applicant(s)

VARIN ET AL.

Examiner

Marcus Charles

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119.

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6-25-2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the first action relating to serial application number 10/706,696 filed 11/12/2003.

Claims 1-14 are currently pending.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The examiner has accepted the drawing filed with this application.

Specification

3. The abstract of the disclosure is objected to because it is not proper to use legal phrases in the abstract. Therefore, the term "said" should be changed to --the--.

Correction is required. See MPEP § 608.01(b).

In addition, the phrase "The invention provides" is a phrase, which can be implied and should be removed from the abstract.

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The disclosure is objected to because of the following informalities: the sub-title -- Field of Invention-- for the first paragraph missing. Appropriate correction is required.

In page 7, line 15, the reference numeral "6" should be should be "5" because "5" is the ridge.

Claim Rejections - 35 USC § 112

6. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention or the claim is referring to certain limitations that are not claimed. In addition, the phrase "at least V-ribs" is unclear and confusing because it appears the claim is also referring to other similar shaped belt.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 3, 7, 9, recite

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the broad recitations 1.1mm to 1.3mm, 1.1mm to 1.5mm and 1.9mm to 2.3mm respectively, and the claim also recites "more particularly" 1.15mm to 1.25mm, 1.08mm to 1.36mm and 2mm to 2.2mm respectively, which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahama et al. (4,904,232). Kitahama et al. discloses a transmission belt (fig. 2) comprising a plurality of v-ribs (15) having flat sides faces (20) and round ridges that present a convex curvilinear profile. Kitahama et al. is silent concerning the radius and length of the convex profile or the ridge, the length of the flat side and the height of the rib. It is well known in the art that the radius of the tip of the rib and the length of the flat side of the rib is dependent on the size of the belt. However, such dimensions are subjective and relative to the size of pulley and belt. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the belt of Kitahama et al. so that the rib tip has a convex curvilinear radius, the height of the rib and the length of the flat side that falls within the ranges of the claimed invention, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum ranges involves routine skill in the art. In re Aller, 105 USPQ

233. Furthermore, it would have been a matter of obvious design choice based on the size of the belt and pulley such that one of ordinary skill in the would be able to make the radius of the convex curvilinear profile to be greater than 1mm and less that or equal to 1.5 mm, the length of the flat side to be between 0.7mm and 1.8 mm and the height of the rib to be between 1.8 and 2.5mm.

In claim 4, note the curvilinear profile is a circle (fig. 2).

In claim 11, note the curvilinear profile is tangential to the side face at the point of contact (22, 125 in fig. 2).

In claim 12, it is apparent that the belt is a K-type belt.

9. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahama et al. in view of Waugh (4,011,766). Kitahama et al. do not disclose that the V-ribs of the V-belt are machined or molded. Waugh discloses that it is well know for the V-ribs of the V-belt to be machined or molded (col.6, 22-33). Therefore, it would have been obvious to one of ordinary skill in art at the time of the invention to produce the v-ribs of Kitahama et al. device by molding or machine in view of Waugh in order to manufacturing cost, reduce production time and to avoid shaving/finishing after manufacturing.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patterson discloses a belt being formed by molding. White et al. (5,458,710) discloses a belt being formed by machining. White, Jr. et al. (4,960,476),

Fischer (4,330,287), Semin et al. (3,643,518) and JP (2003-14053) disclose a belt having a rib such that the tip of the rib has a convex curvilinear shape.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marcus Charles
Primary Examiner
Art Unit 3682
May 09, 2006